

## ABSTRACT OF THE DISCLOSURE

The process produces concrete blocks with different thicknesses of the core concrete and facing concrete in a single mold. To change the height of the core concrete layer and the facing concrete layer, the vertically movable bottom parts of the multichamber mold are first moved into the first vertical position. After the mold is filled with the core concrete the bottom parts together with the core concrete and the lowered pressure plates are moved down into the second vertical position for precompaction. After precompaction, the pressure plates are raised and the mold cavities are filled with the facing concrete. For subsequent finish-compaction the two concrete layers together with the bottom parts and the pressure plates are moved down until the top edge of the bottom parts is at the same height with the bottom edge of the mold. After finish-compaction the bottom parts are moved horizontally to the outside under the mold and finished concrete block is removed from the mold.